

Applicant: Feliks Dujmenovic Application No.: 09/669,274

IN THE SPECIFICATION

Please replace the paragraph beginning at page 2, line 12 with the following rewritten paragraph:

Another approach is to use an image rejection mixer 10, as illustrated in Figure 1. A received radio frequency signal is input into the image rejection mixer 10. The received signal is input to an in-phase mixer 14 and a quadrature phase mixer 12. A local oscillator (LO) 11 generates a carrier signal. The carrier signal is input into the quadrature phase mixer 12 to produce a demodulated quadrature phase signal and into a 90 degree phase shift device 16, such as a RC-CR circuit, to produce an in-phase carrier. The in-phase carrier is input into the in-phase mixer 12 14 to produce a demodulated in-phase signal. The demodulated quadrature phase signal is subsequently delayed by a 90 degree phase shift device 22. An adder 20 combines the phase delayed quadrature phase signal to the in-phase signal to produce the desired signal. Typically, the image signal will be out of phase with the desired signal. As a result, the combining cancels the image signal leaving only the desired signal.

Please replace the paragraph beginning at page 5, line 10 with the following rewritten paragraph:

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One ring oscillator 32 for producing the in-phase and quadrature phase carrier uses four delay cells 44₁-44₄, as shown in Figure 2. Each delay cell 44₁-44₄ delays the input signal by 45 degrees. As a result, the first delay cell 44₁ produces a 45 degree phase delay. The second delay cell 44₂ delays the 45 degree delayed signal by another 45 degrees, totaling 90 degrees. The output of the second delay cell 44₂ is inverted as to shift the phase by 180 degrees prior to being input into the third delay cell 44₃. The third delay cell 44₃ delays the 270 degree delayed signal by 45 degrees, totaling 315 degrees. The fourth cell 44₄ delays the output of the third cell 44₃ by 45 degrees totaling 360 degrees creating the oscillation. Although the output of the second cell 44₂ is shown as used for the in-phase carrier and the output of the fourth cell 44₄ for the quadrature phase carrier, any of the outputs or inputs separated by 90 degrees may be used.